

Amendments to the Specification

Please replace the paragraph beginning on page 1, line 5, to line 12 with the following rewritten paragraph:

The present invention relates to a light source device that has: a light-emitting tube including a light-emitting portion that generates a light beam by an electric discharge between electrodes, and sealing portions provided on both sides of the light-emitting portion; and a reflector including a neck portion provided with an insertion hole to which the light-emitting tube is inserted, and a reflecting portion integrally formed with the neck portion and having an ellipsoidal curved reflecting surface that irradiates the light beam emitted by the light-emitting portion aligns the light beam ~~after aligning~~ in a predetermined direction, as well as to a projector.

Please replace the paragraph beginning on page 1, line 27, to page 2, line 1 with the following rewritten paragraph:

The reflector has a neck portion with an insertion hole to which the light-emitting tube is inserted, and a reflecting portion integrally formed with the neck portion and having an ellipsoidal curved reflecting surface that irradiates the light beam emitted by the light-emitting portion and aligns the light beam ~~after aligning~~ in a predetermine direction.

Please replace the paragraph beginning on page 2, line 2, to line 7, with the following rewritten paragraph:

When the light-emitting tube and the reflector are integrated, the sealing portion of the light-emitting tube is inserted to the insertion hole of the reflector, positioned so that the light-emitting portion is positioned at a predetermined position inside the reflector, and consequently the light-emitting tube can be fixed inside the reflector by curing a silica-

alumina inorganic adhesive after filling it from the side of the base end of the insertion hole to the part between ~~inside of~~ the insertion hole and the sealing portion.

Please replace the paragraph beginning on page 2 line, 29, to page 3, line 14 with the following rewritten paragraph:

A light source device according to an aspect of the present invention includes: a light-emitting tube including a light-emitting portion that generates a light beam by an electric discharge between electrodes, and sealing portions provided on both sides of the light-emitting portion; and a reflector including a neck portion provided with an insertion hole to which the light-emitting tube is inserted, and a reflecting portion integrally formed with the neck portion and having an ellipsoidal curved reflecting surface that irradiates the light beam emitted by the light-emitting portion and aligns the light beam ~~after aligning in a~~ predetermined direction, in which the light-emitting tube has a sub-reflection mirror that covers substantially front half of the light-emitting portion, in which the insertion hole has a diameter that is enlarged from the base end thereof toward the distal end in a light irradiation direction, and in which the opening diameter of the insertion hole on the side of the reflecting surface is greater than the external diameter of the sub-reflection mirror while the opening diameter is within the internal diameter of a valid reflection area of the reflector, the internal diameter being defined by a front focal position of the reflector and the outer periphery of the sub-reflection mirror.

Please replace the paragraph beginning on page 3, line 20, to line 25, with the following rewritten paragraph:

With this arrangement, the opening diameter of the insertion hole on the side of the reflecting surface is greater than the external diameter of the sub-reflection mirror while the

opening diameter is set within the internal diameter of the valid reflection area of the reflector, so that the adhesive can be filled from the sufficiently large opening diameter. Accordingly, the adhesive can easily be filled from the side of the reflecting portion of the reflector, and thus it is possible to fill the adhesive by inserting a jig or the like.

Please replace the paragraph beginning on page 4, line 2, to line 6, with the following rewritten paragraph:

Further, since the opening diameter of the insertion hole is greater than the external diameter of the sub-reflection mirror and is set within the internal diameter of the valid reflection area of the reflector, the amount of the light beam irradiated by the light source device would not be reduced due to the reduction in size of the reflecting surface of the reflector.

Please replace the paragraph beginning on page 4, line 6, to line 24, with the following rewritten paragraph:

A projector according to another aspect of the present invention includes: a light source device; an optical modulator that modulates a light beam irradiated by the light source device in accordance with image information to form an optical image; and a projection optical device that projects the optical image formed by the optical modulator in an enlarged manner, in which the light source device includes: a light-emitting tube including a light-emitting portion that generates a light beam by an electric discharge between electrodes, and sealing portions provided on both sides of the light-emitting portion; and a reflector including a neck portion provided with an insertion hole to which the light-emitting tube is inserted, and a reflecting portion integrally formed with the neck portion and having an ellipsoidal curved reflecting surface that irradiates the light beam emitted by the light-emitting portion and

aligns the light beam after-aligning in a predetermined direction, in which the light-emitting tube has a sub-reflection mirror that covers substantially front half of the light-emitting portion, in which the insertion hole has a diameter that is enlarged from the base end thereof toward the distal end in a light irradiation direction, and in which the opening diameter of the insertion hole on the side of the reflecting surface is greater than the external diameter of the sub-reflection mirror while the opening diameter is within the internal diameter of a valid reflection area of the reflector, the internal diameter being defined by a front focal position of the reflector and the outer periphery of the sub-reflection mirror.

Please replace the paragraph beginning on page 5, line 27, to page 6 , line 1, with the following rewritten paragraph:

The light source lamp unit 10 that irradiates a light beam emitted by a light source lamp 11 forward and aligns the light beam after-aligning in a predetermined direction to illuminate the optical device 40, though described below in detail, includes the light source lamp 11, an ellipsoidal reflector 12, a sub-reflection mirror 13 and a parallelizing concave lens 14.

Please replace the Abstract with the attached amended/substitute Abstract.

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A light source device, comprising:

a light-emitting tube including a light-emitting portion that generates a light beam by an electric discharge between electrodes, and sealing portions provided on both sides of the light-emitting portion; and

a reflector including a neck portion provided with an insertion hole to which the light-emitting tube is inserted, and a reflecting portion integrally formed with the neck portion and having an ellipsoidal curved reflecting surface that irradiates the light beam emitted by the light-emitting portion and aligns the light beam ~~after aligning~~ in a predetermined direction,

wherein the light-emitting tube has a sub-reflection mirror that covers substantially front half of the light-emitting portion,

wherein the insertion hole has a diameter that is enlarged from the base end thereof toward the distal end in a light irradiation direction, and

wherein the opening diameter of the insertion hole on the side of the reflecting surface is greater than the external diameter of the sub-reflection mirror while the opening diameter is within the internal diameter of a valid reflection area of the reflector, the diameter being defined by a front focal position of the reflector and the outer periphery of the sub-reflection mirror.

2. (Currently Amended) A projector comprising:

a light source device;

an optical modulator that modulates a light beam irradiated by the light source device in accordance with image information to form an optical image; and

a projection optical device that projects the optical image formed by the optical modulator in an enlarged manner,

wherein the light source device comprises:

a light-emitting tube including a light-emitting portion that generates a light beam by an electric discharge between electrodes, and sealing portions provided on both sides of the light-emitting portion; and

a reflector including a neck portion provided with an insertion hole to which the light-emitting tube is inserted, and a reflecting portion integrally formed with the neck portion and having an ellipsoidal curved reflecting surface that irradiates the light beam emitted by the light-emitting portion and aligns the light beam ~~after aligning~~ in a predetermined direction,

wherein the light-emitting tube has a sub-reflection mirror that covers substantially front half of the light-emitting portion,

wherein the insertion hole has a diameter that is enlarged from the base end thereof toward the distal end in a light irradiation direction, and

wherein the opening diameter of the insertion hole on the side of the reflecting surface is greater than the external diameter of the sub-reflection mirror while the opening diameter is within the internal diameter of a valid reflection area of the reflector, the internal diameter being defined by a front focal position of the reflector and the outer periphery of the sub-reflection mirror.